

## Chapter 7

# Working with Schedule Objects

## Introduction

A Schedule object allows you to automate routine functions. For example, you can schedule a fan to start every weekday (Monday through Friday) at 7:00 a.m. and stop at 5:00 p.m.

This chapter describes how to:

- create a new Schedule object
- edit a Schedule object
- delete a Schedule object
- command a Schedule object

For information on creating and editing Schedule objects in Project Builder, see the *Project Builder User's Guide*. For information on viewing and editing Schedules using M-Schedule, see the *M-Schedule/M-Calendar User's Guide*.

## Key Concepts

### Schedule Object

The Schedule object updates the attribute values of objects according to the time of day. The Schedule object allows for flexible selection of dates on which to run the Schedule. These times can be specified for days of the week and exception days. The exception days can be defined as specific dates, ranges of dates, or days for which a given Calendar object is defined. See Table 7-7 for a list of exception types.

The Schedule object is compatible with the BACnet Schedule object. All required and optional attributes of the BACnet Schedule object are supported. Some proprietary attributes have been added to the N30 to extend the functionality of the Schedule object. The Schedule object is added to the Schedule container in an N30 database.

### Attributes

The values of an object's attributes determine how the object operates. The Schedule object attributes described below are listed in the order that they appear on the screen.

For additional information about Schedule object and its attributes refer to the *Object Dictionary*.

#### **Object Name**

Identifies the object on the user interface. This is the name the user sees when viewing the database.

#### **Description**

Provides optional information to further describe the object.

#### **Object Type**

Indicates the type of object, such as Schedule, N2 Analog Input, or Calendar.

#### **Object Category**

Determines the general classification of an object to help define user access capability and message routing.

#### **Enabled**

Indicates if the object is active and executing an operational condition.

**List of Property References (List of Prop Refs)**

Lists attributes of objects, which are to be written at the scheduled times. The List of Prop Refs is a list of the objects and attributes that are scheduled using the Schedule object.

**Weekly Schedule**

Contains one element for each day of the week, where element 1=Monday, 2=Tuesday, . . . 7=Sunday. Each element contains a list of the times and corresponding values for the Schedule object to write to the scheduled objects. The exception schedules override the times in this weekly schedule.

**Exception Schedule**

Contains a list of exceptions to the times listed in the weekly schedule. The exceptions can be based on a specific date, a date range, a calendar reference, or a week/day selection. The Schedule object automatically deletes date or range type of exceptions that expired 31 days ago. All four types of exceptions also contain the times and corresponding values for the Schedule object to write to the scheduled objects on those exceptions. The exceptions are also prioritized 1 . . . 16, with 1 being the highest priority. If multiple exceptions apply for a given day, then the exception with highest priority is in effect. If multiple exceptions apply for the current day and have the same priority, then the first of these in the list is in effect. The week/day selection can be used to identify particular days of the week, months of the year, etc.

**Effective Period**

Gives the range of dates that the Schedule object is active. By default, these dates are unspecified (blank), causing the Schedule object to be active for all days. Refer to *Wildcard Date Fields* in this chapter for further details.

**Present Value**

Indicates the current value of the Schedule object. This is the value most recently written to a referenced object attribute, listed in the List of Prop Refs attribute. A blank Present Value field in a Schedule object indicates that the schedule has not reached a scheduled time since the object was created (or since the last device restart).

## Dates

Each date contains four fields: Day of Month, Month, Year, and Day of Week. These fields appear in the following format:

<Day of Month> <Month> <Year> <Day of Week>

The values of the Day of Month and Day of Week fields cannot contradict each other or the date is not valid. For example, a date of 10 Apr 1999 Tuesday is invalid because April 10, 1999 is not a Tuesday. Also, the values of a date range (start date, end date) must be in chronological order or the date range is not valid. For example, a date range with a start date of 30 Aug 1999 Monday and an end date of 30 Jun 1999 Wednesday is not valid because August 1999 comes after June 1999.

## Wildcard Date Fields

Any unspecified date field is considered to be a wildcard date field.

### Single Date

For a single date, a wildcard opens a particular field to the full range of possible values for that field. Table 7-1 describes the meaning of a wildcard in each of the four date fields.

**Table 7-1: Wildcard Date Field Meanings**

Unspecified Field	Meaning
Day of Month	Every day of the month, unless a particular day of the week is specified by the Day of Week field
Month	Every month
Year	Every year
Day of Week	Every day of the week, unless a particular day of the month is specified by the Day of Month field

Table 7-2 shows some sample wildcard dates and their meanings.

**Table 7-2: Sample Wildcard Dates**

Wildcard Date	Meaning
01 * * Any day of the week	The first day of every month, every year
12 Apr * Any day of the week	April 12 of every year
* Apr 1999 Any day of the week	Every day in April 1999
* * * Any day of the week	Every day
* * * Monday	Every Monday
* * 1999 Monday	Every Monday in 1999
* Apr 1999 Monday	Every Monday in April of 1999
12 Apr 1999 Any day of the week	Only on Monday, April 12, 1999 (same meaning as 4/12/99Mon)

\* Indicates a blank field.

### ***Date Range***

If the same field is a wildcard in both the start date and end date, the range from start to end is infinite, except as limited by the other date fields. The Day of Week field is only considered when it is specified for both the start date and the end date. Table 7-3 shows sample wildcard date ranges and meanings.

**Table 7-3: Sample Wildcard Date Ranges**

Start Date			End Date				Meaning	
*	*	*	Wednesday	*	*	*	Friday	Every Wednesday, Thursday, and Friday of every month, every year
*	*	1999	Wednesday	*	*	1999	Friday	Every Wednesday, Thursday, and Friday of every month in 1999
*	Jun	1999	Wednesday	*	Aug	1999	Friday	Every Wednesday, Thursday, and Friday in June, July, and August in 1999
*	Jun	1999	Any day of the week	*	Aug	1999	*	Every day in June, July, and August in 1999
30	Aug	1999	Any day of the week	*	*	*	*	Every day after August 30, 1999
10	*	*	Any day of the week	12	*	*	*	The tenth, eleventh, and twelfth days of every month, every year
04	Jul	*	Monday	04	Jul	*	Friday	Every July 4 that is a Monday, Tuesday, Wednesday, Thursday, or Friday, every year

\* Indicates a blank field.

### ***Week and Day***

The Week and Day selection identifies a month, a week of the month, and a day of the week. The week of the month can be chosen as Any (every) week of month, Days 1-7, Days 8-14, Days 15-21, Days 22-28, Days 29-31, and the Last seven days. Table 7-4 shows some sample wildcard week and day exceptions.

**Table 7-4: Sample Wildcard Week and Days**

Wildcard Date			Meaning
Month	Week of Month	Day of Week	
Any	Any week of month	Any day of week	Every day of the year
Any	Days 1-7	Monday	Monday of the first week of every month
Jan	Any week of month	Tuesday	Every Tuesday in January
Feb	Days 8-14	Any day of week	Every day of the week in the second week of February
Any	Any week of month	Wednesday	Wednesday of every week of every month
Mar	Any week of month	Any day of week	Every day of every week in March
Any	Days 14-21	Any day of week	Every day of the third week of every month
Apr	Days 22-28	Thursday	Thursday in the fourth week of April
Any	Days 29-31	Any day of week	Last three days of every month with 31 days
Jun	Last seven days	Saturday	Saturday in the last seven days of June

## Time Changes

When a time change occurs or the supervisory controller restarts, the Schedule object attempts to reissue the last value that should have been scheduled. It searches backwards through the time and value pairs for the current day to find the last scheduled time. If no times are found from midnight to the current time, then the latest scheduled value will be used. Changes in time due to Daylight Saving Time are also handled in this manner.

## Procedure Overview

**Table 7-5: Working with Schedule Objects**

To Do This:	Follow These Steps:
<b>Create a New Schedule Object</b>	<p><b>Add a Schedule object</b> - Browse to and highlight the Schedule container. Press the F3 (Add) key. Highlight Schedule and press Enter. Fill in the fields using Table 7-6. Press the F3 (Save) key. Check the User Assistance area of the screen to verify if the save was successful or if there were errors. Press any key to continue. Press the F4 (Cancel) key to return to the container hierarchy.</p> <p><b>Add to a List of Prop Refs</b> - Browse to and highlight a Schedule object. Press Enter. Press the F3 (Edit) key. Move the cursor to the List of Prop Refs. Press Enter. In the Object Name field that is highlighted, type the <b>exact</b> name of the object to be scheduled. Press Enter. Move the cursor to the Attribute field for that object. Use the Spacebar and Backspace keys to cycle through the list of attributes until the desired attribute appears. Press the F4 (Back) key. Press the F3 (Save) key. Check the User Assistance area of the screen to verify if the save was successful or if there were errors. Press any key to continue. Press the F4 (Cancel) key to return to the container hierarchy.</p> <p><b>Add a Weekly Schedule</b> - Browse to and highlight a Schedule object. Press Enter. Press the F3 (Edit) key. Move the cursor to Weekly Schedule. Press Enter. Use the Spacebar and Backspace keys to cycle through the days of the week until the day you are scheduling appears. Press the F3 (Add Item) key. Enter the time/value pair in the fields displayed. Press the F4 (Back) key. Press the F3 (Save) key. Check the User Assistance area of the screen to verify if the save was successful or if there were errors. Press any key to continue. Press the F4 (Cancel) key to return to the container hierarchy.</p> <p><b>Add an Exception Schedule</b> - In the Schedule container, highlight a schedule. Press Enter. Press the F3 (Edit) key. Move the cursor to the Exception Schedule field. Press Enter. Press the Add Item (F3) key. Move the cursor to Exception Type. Select an exception type. Enter values for Date and Priority. Press the F4 (Back) key. Press the F3 (Save) key. Check the User Assistance area of the screen to verify if the save was successful or if there were errors. Press any key to continue. Press the F4 (Cancel) key to return to the container hierarchy.</p> <p><b>Set an Effective Period for an Object</b> - Browse to and highlight a Schedule object. Press Enter. Press the F3 (Edit) key. Move the cursor to Effective Period and press Enter. Enter the starting and ending dates the Weekly schedule should be active. Press the F4 (Back) key. Press the F3 (Save) key. Check the User Assistance area of the screen to verify if the save was successful or if there were errors. Press any key to continue. Press the F4 (Cancel) key to return to the container hierarchy.</p>
<b>Edit a Schedule Object</b>	<p><b>Edit a List of Prop Refs</b> - Browse to and highlight a Schedule object. Press Enter. Press the F3 (Edit) key. Move the cursor to the List of Prop Refs. Press Enter. Highlight the Object Name that you want to edit. Type the <b>exact</b> name of the new object you want to schedule. Move the cursor to the Attribute field for that object. Use the Spacebar and Backspace keys to cycle through the list of attributes until the desired attribute appears. Press the F4 (Back) key. Press the F3 (Save) key. Check the User Assistance area of the screen to verify if the save was successful or if there were errors. Press any key to continue. Press the F4 (Cancel) key to return to the container hierarchy.</p>
Continued on next page . . .	

To Do This (Cont.)	Follow These Steps:
<b>Edit a Schedule Object (Cont.)</b>	<p><b>Delete from a List of Prop Refs</b> - Browse to and highlight a Schedule object. Press Enter. Press the F3 (Edit) key. Move the cursor to the List of Prop Refs. Press Enter. Highlight the Object Name to delete. Press the F2 (Del Item) key. Press the F4 (Back) key. Press the F3 (Save) key. Check the User Assistance area of the screen to verify if the save was successful or if there were errors. Press any key to continue. Press the F4 (Cancel) key to return to the container hierarchy.</p> <p><b>Edit a Weekly Schedule</b> - Browse to and highlight a Schedule object. Press Enter. Press the F3 (Edit) key. Move the cursor to Weekly Schedule. Press Enter. Use the Spacebar and Backspace keys to cycle through and select the day of the week. Move the cursor to the time and value pairs. Edit the fields as desired. Press the F4 (Back) key. Press the F3 (Save) key. Check the User Assistance area of the screen to verify if the save was successful or if there were errors. Press any key to continue. Press the F4 (Cancel) key to return to the container hierarchy.</p> <p><b>Edit an Exception Schedule</b> - Browse to and highlight a Schedule object. Press Enter. Press the F3 (Edit) key. Move the cursor to Exception Schedule and press Enter. Use the Spacebar or Backspace key to select an exception schedule. Highlight Exception Type. Cycle through the available exception types. Use the cursor to move to the other fields and edit as desired. Press the F4 (Back) key. Press the F3 (Save) key. Press any key to continue. Press the F4 (Cancel) key.</p> <p><b>Add Time and Value Pairs to an Exception Schedule</b> - Browse to and highlight a Schedule object. Press Enter. Press the F3 (Edit) key. Move the cursor to Exception Schedule. Press Enter. Use the Spacebar and Backspace keys to cycle through and select the Exception Schedule where you want to add time and value pairs. Place the cursor on any of the fields that appear except the number of Exception Schedules. Press the F3 (Add Item) key. In the Time field, type the desired time. In the Value field, press the Spacebar or Backspace key to select On or Off. Press the F4 (Back) key. Press the F3 (Save) key. Press any key to continue. Press the F4 (Cancel) key.</p> <p><b>Delete Time and Value Pairs from an Exception Schedule</b> - Browse to and highlight a Schedule object. Press Enter. Press the F3 (Edit) key. Move the cursor to Exception Schedule. Press Enter. Use the Spacebar and Backspace keys to cycle through and select the Exception Schedule where you want to delete time and value pairs. Place the cursor on a time and value pair. Press the F2 (Delete Item) key. Press the F4 (Back) key. Press the F3 (Save) key.</p>
<b>Commanding a Schedule Object</b>	Browse to and highlight a Schedule object. Press the F2 (Command) key. Use the Spacebar and Backspace keys to cycle through the available commands. Press Enter.
<b>Delete a Schedule Object</b>	<p><b>Delete a Weekly Schedule</b> - Browse to and highlight a Schedule object. Press Enter. Press the F3 (Edit) key. Move the cursor to Weekly Schedule. Press Enter. Use the Spacebar and Backspace keys to cycle through the days of the week. Move the cursor to each time and value pair. Press the F2 (Item Del) key for each time and value pair. Press the F4 (Back) key. Press the F3 (Save) key. Press any key to continue. Press the F4 (Cancel) key.</p> <p><b>Delete an Exception Schedule</b> - Browse to and highlight a Schedule object. Press Enter. Press the F3 (Edit) key. Move the cursor to Exception Schedule and press Enter. Use the Spacebar and Backspace keys to cycle to the Exception Schedule that you want to delete. Press the Del Item (F2) key. Press the F4 (Back) key. Press the F3 (Save) key. Press any key to continue. Press the F4 (Cancel) key.</p> <p><b>Delete a Schedule Object</b> - Browse to and highlight a Schedule. Press Enter. Press the Delete key. Press the Tab key to confirm the deletion.</p>



## Detailed Procedures

### Creating a New Schedule

Creating a new schedule consists of adding a Schedule object, adding the objects and the attributes of those objects (List of Prop Refs) that you are scheduling, and then creating a weekly Schedule for those items. Additional tasks that can be part of creating a new schedule are adding exceptions to the schedule, and setting an effective period for the Schedule or the exceptions. All of these tasks are covered in this section, *Creating a New Schedule*.

#### **To add a Schedule object:**

1. Browse to and highlight the Schedule container.
2. Press the F3 (Add) key. The Add Objects list appears.
3. Highlight Schedule and press Enter. The Schedule object attribute screen appears (Figure 7-1).

```

South Building: ADMIN                               Thu 28 Oct 1999 15:26 CDT
=====
      South Building.Schedule.Schedule{6}
-----
Object
Object Name      [REDACTED]
Description
Object Type      SCHEDULE
Object Category  HVAC
Enabled          True
Scheduling Values
List Of Prop Refs [0] Items
Weekly Schedule  [7] Items
Exception Schedule [0] Items
Effective Period  [2] Items

      F3-Save F4-Cancel
Enter an alphanumeric string
  
```

**Figure 7-1: New Schedule Object Screen**

4. Fill in the fields using Table 7-1.

**Table 7-6: Attribute Entry Requirements**

Screen Area	Attribute	Required	Default	Options/ Range
<b>Object</b>	Object Name	No	Blank	Maximum 32 characters Invalid characters: @ . ? * \$ # : ' [ ] If not completed, the system assigns a name.
	Description	No	Blank	Maximum 40 characters
	Object Type	Yes	Calendar	The default is preset and cannot be changed.
	Object Category	Yes	HVAC	Use the Spacebar and Backspace key to view and select options: HVAC, Fire, Security, Services, Administrative.
	Enabled	Yes	True	Use the Spacebar and Backspace key to view and select options: True, False.
<b>Scheduling Values</b>	List of Prop Refs	Yes	[0] Items	See the appropriate sections of this chapter.
	Weekly Schedule	Yes	[7] Items	See the appropriate sections of this chapter.
	Exception Schedule	Yes	[0] Items	See the appropriate sections of this chapter.
	Effective Period	Yes	[2] Items	See the appropriate sections of this chapter.

5. Press the F3 (Save) key.
6. Check the User Assistance area of the screen to verify if the save was successful or if there were errors. If errors were detected, correct them and resave the entries. Once the save is successful, continue with Step 7.
7. Press any key to continue.
8. Press the F4 (Back) key to return to the container hierarchy.

Note: Now that you have a Schedule object you need to add the objects to be scheduled. See *Adding to a List of Prop Refs* in this chapter.

### ***Adding to a List of Prop Refs***

**IMPORTANT:** All objects scheduled by a Schedule object must reside on the same N30. The first object in the List of Prop Refs determines which N30. The Schedule object itself may or may not be located on this N30.

Notes: Prior to adding to a List of Prop Refs you should have a list of the **exact** names of the objects that you are scheduling.

A Schedule object can indirectly schedule objects on multiple N30s by scheduling a Multiple Command object, which commands objects on multiple devices. For more information, see the *Working with Multiple Command Objects (LIT-6892170)* chapter in this manual.

To add objects and attributes to a List of Prop Refs:

1. Browse to and highlight the Schedule object.
2. Press Enter to open the object.
3. Press the F3 (Edit) key.
4. Move the cursor to the List of Prop Refs.
5. Press Enter. The List of Prop Refs appears (Figure 7-2).
6. In the Object Name field that is highlighted, type the exact name of the object to be scheduled.
7. If the object is valid, use the arrow or Tab key to move the cursor to the attribute field. If the object name is invalid, you receive an `Object not found` message. If you receive this message you must retype a valid object name.
8. Use the Spacebar and Backspace keys to cycle through the list of attributes until the desired attribute appears. The default value is Present Value.

```

South Building: ADMIN                               Fri 29 Oct 1999 12:45 CDT
=====
      South Building.Schedule.Schedule{6}
=====
List Of Prop Refs
1:Object Name
  Attribute

F2-Del Item F3-Add Item F4-Back
Enter object name

```

**Figure 7-2: List of Prop Refs**

9. Press the F3 (Add Item) key to add a blank entry for an additional object and attribute.
10. Repeat Steps 6 through 10 for each object being added to the List of Prop Refs.
11. Press the F4 (Back) key.
12. Press the F3 (Save) key.
13. Check the User Assistance area of the screen to verify if the save was successful or if there were errors. If errors were detected, correct them and resave the entries. Once the save is successful, continue with Step 14.
14. Press any key to continue.
15. Press the F4 (Back) key to return to the container hierarchy.

**IMPORTANT:** Once you save entries in the List of Prop Refs, you can no longer edit the first entry in the list (the object device). You cannot change an existing Schedule object to schedule points on a different N30; you must delete the entire schedule and add a new one.

### ***Adding a Weekly Schedule***

To add a Weekly Schedule:

1. Browse to and highlight a Schedule object.
2. Press Enter to open the object.
3. Press the F3 (Edit) key.
4. Move the cursor to the Weekly Schedule.
5. Press Enter. A new Weekly Schedule screen appears (Figure 7-3).

Note: You cannot add a weekly schedule unless there is something to be scheduled in the List of Prop Refs.

```

South Building: ADMIN                               Fri 29 Oct 1999 16:00 CDT
=====
classes                                           deg F
=====
Weekly Schedule
Monday
=====
F2-Del Item F3-Add Item F4-Back
Press space bar / backspace to change the day of week
  
```

**Figure 7-3: Weekly Schedule Screen**

6. Use the Spacebar and Backspace keys to cycle through and select the day of the week for the schedule entry.
7. Press the F3 (Add Item) key.
8. Add the time/value pair in the fields displayed. Press the Tab key to move between the Time and Value fields.
9. To add another entry, repeat Steps 6 through 8.
10. Press the F4 (Back) key to return to the previous screen.
11. Press the F3 (Save) key.

12. Check the User Assistance area of the screen to verify if the save was successful or if there were errors. If errors were detected, correct them and resave the entries. Once the save is successful, continue with Step 13.
13. Press any key to continue.
14. Press the F4 (Back) key to return to the container hierarchy.

### ***Adding an Exception Schedule***

To add an Exception Schedule:

1. Browse to and highlight a Schedule object.
2. Press Enter to open the object.
3. Press the F3 (Edit) key.
4. Move the cursor to the Exception Schedule field.
5. Press Enter. The Exception Schedule appears (Figure 7-1).

South Building: ADMIN		Tue 02 Nov 1999 10:37 CST	
=====			
ADMIN-SCHEDULE OFFICE		On	
-----			
<u>Exception Schedule</u>		2 of 2	
Exception Type	Single Date		
Date	02 Nov 1999 Any day of week		
Priority	8		
F3-Add Item F4-Back			
Press space bar / backspace to select value			

**Figure 7-4: Schedule Object Exception Schedule**

6. Press the Add Item (F3) key. The Exception Schedule screen appears.
7. Use the Spacebar and Backspace keys to cycle through the Exception Type options (Table 7-7).

**Table 7-7: Exception Schedule Types**

<b>Exception Type</b>	<b>Setting</b>
<b>Single Date</b>	Enter the date to run the Exception schedule instead of the current schedule.
<b>Date Range</b>	Enter the range of dates to run the Exception schedule instead of the current schedule.
<b>Week and Day</b>	Enter a recurring week and day of the month to run the Exception schedule instead of the current schedule.
<b>Calendar Ref</b>	Enter a reference to an existing Calendar object that determines the dates to run the Exception schedule instead of the current schedule. This exception must be a valid Calendar object name.

8. Use the Tab or arrow keys to move to the remaining fields. Either type in all values, or use the number keys to enter dates and the Spacebar and the Backspace key to change days and months.

Note: Pressing the F3 (Add) key at this point adds Time and Value pairs to the Exception Schedule. Information on adding and deleting Time and Value pairs is under the Editing Schedule Objects section of this chapter.

9. Repeat Steps 6 through 8 for each new Exception Schedule.
10. Press the F4 (Back) key to return to the previous screen.
11. Press the F3 (Save) key.
12. Check the User Assistance area of the screen to verify if the save was successful or if there were errors. If errors were detected, correct them and resave the entries. Once the save is successful, continue with Step 13.
13. Press any key to continue.
14. Press the F4 (Back) key to return to the container hierarchy.

### ***Setting an Effective Period for a Schedule Object***

To set an Effective Period for a Schedule object:

1. Browse to and highlight a Schedule object.
2. Press Enter to open the object.
3. Press the F3 (Edit) key.
4. Move the cursor to Effective Period.
5. Press Enter. The Effective Period screen appears (Figure 7-5).

```

South Building: ADMIN                               Mon 01 Nov 1999 10:45 CST
=====
classes                                             deg F
=====
Effective Period []
Start Date      ■ Any day of week
End Date        Any day of week

F4-Back
Enter day of month

```

**Figure 7-5: Effective Period Screen**

6. Enter the starting and ending dates the Weekly schedule should be active. Use the number keys to enter dates and the Spacebar and the Backspace key to change days and months.
7. Press the F4 (Back) key to return to the previous screen.
8. Press the F3 (Save) key.
9. Check the User Assistance area of the screen to verify if the save was successful or if there were errors. If errors were detected, correct them and resave the entries. Once the save is successful, continue with Step 10.
10. Press any key to to continue.
11. Press the F4 (Cancel) key to return to the container hierarchy.

## Editing Schedule Objects

Note: Editing a Schedule can include editing the objects and the attributes of those objects (List of Prop Refs) that you have already scheduled, editing a weekly Schedule for those items, editing exceptions to the schedule, and editing the effective periods of the various schedules.



### ***Editing a List of Prop Refs***

**IMPORTANT:** When entries are put in the List of Prop Refs and saved, you can no longer edit the first entry in the list (the object device). You cannot change an existing Schedule object to schedule points on a different N30; you must delete the entire schedule and add a new one.

To edit a List of Prop Refs:

1. Browse to and highlight the Schedule object.
2. Press Enter to open the object.
3. Press the F3 (Edit) key.
4. Move the cursor to List of Prop Refs.
5. Press Enter. The List of Prop Refs appears (Figure 7-2).
6. Highlight an Object Name that you want to edit.
7. In the Object Name field that is highlighted, type the exact name of the object to be scheduled.
8. If the object is valid, use the arrow or Tab key to move the cursor to the attribute field. If the object name is invalid, you receive an Object not found message. If you receive this message, you must retype a valid object name.
9. Use the Spacebar and Backspace keys to cycle through the list of attributes until the desired attribute appears. The default value is Present Value.
10. Press the F4 (Back) key to return to the previous screen.
11. Press the F3 (Save) key.
12. Check the User Assistance area of the screen to verify if the save was successful or if there were errors. If errors were detected, correct them and resave the entries. Once the save is successful, continue with Step 13.
13. Press any key to continue.
14. Press the F4 (Cancel) key to return to the container hierarchy.

***Deleting from a List of Prop Refs***

To delete from a List of Prop Refs:

1. Browse to and highlight a Schedule object.
2. Press Enter to open the object.
3. Press the F3 (Edit) key.
4. Move the cursor to the List of Prop Refs.
5. Press Enter. The List of Prop Refs appears (Figure 7-2).
6. Highlight the Object Name to delete.
7. Press the F2 (Del Item) key.
8. Repeat Steps 6 and 7 for each object you want to delete.
9. Press the F4 (Back) key.
10. Press the F3 (Save) key.
11. Check the User Assistance area of the screen to verify if the save was successful or if there were errors. If errors were detected, correct them and resave the entries. Once the save is successful, continue with Step 12.
12. Press any key to continue.
13. Press the F4 (Cancel) key to return to the container hierarchy.

***Editing a Weekly Schedule***

To edit a Weekly Schedule:

1. Browse to and highlight a Schedule object.
2. Press Enter to open the object.
3. Press the F3 (Edit) key.
4. Move the cursor to Weekly Schedule.
5. Press Enter. The Weekly Schedule screen appears (Figure 7-6).

```

South Building: ADMIN                      Tue 02 Nov 1999 10:43 CST
=====
ADMN-SCHEDULE OFFICE                      On
=====
Weekly Schedule

Monday
  1:Time      06:15:00      Value      On
  2:Time      22:00:00      Value      Off

F2-Del Item F3-Add Item F4-Back
Enter time as HH:MM:SS

```

**Figure 7-6: Weekly Schedule with Time and Value Pair**

6. Use the Spacebar or the Backspace key to select the day of the week that contains the schedule you want to change.
7. Use the arrow or Tab keys to move the cursor to a time and value pair that you want to edit.
8. Edit the fields as desired.
9. Press the F3 (Add) key to add Time and Value pairs to the weekly schedule.
10. To change another schedule, repeat Steps 6 through 9.
11. Press the F4 (Back) key to return to the previous screen.
12. Press the F3 (Save) key.
13. Check the User Assistance area of the screen to verify if the save was successful or if there were errors. If errors were detected, correct them and resave the entries. Once the save is successful, continue with Step 14.
14. Press any key to continue.
15. Press the F4 (Cancel) key to return to the container hierarchy.

### ***Editing an Exception Schedule***

To edit an Exception Schedule:

1. Browse to and highlight a Schedule object.
2. Press Enter to open the object.
3. Press the F3 (Edit) key.
4. Move the cursor to Exception Schedule.
5. Press Enter. The Exception Schedule screen appears (Figure 7-7).

South Building: ADMIN		Mon 01 Nov 1999 21:28 CST	
=====		=====	
classes		deg F	
-----		-----	
<u>Exception Schedule</u>	<b>2</b> of 3		
Exception Type	Date Range		
Start Date	22 Nov 1999 Any day of week		
End Date	25 Nov 1999 Any day of week		
Priority	8		
F2-Del Item F3-Add Item F4-Back			
Press space bar / backspace to select value			

**Figure 7-7: Exception Schedule Edit Screen**

6. Use the Spacebar or Backspace key to cycle through the available exception schedules until the one you want to edit appears.

Note: The number of Exception schedules you are cycling through is listed. The example in Figure 7-7 shows the second of three available Exception schedules.

7. To change the Exception type, use the arrow or Tab keys to select the Exception Type field. Use the Spacebar and Backspace keys to cycle through the Exception Type options. See Table 7-7.
8. To edit other fields, use the Tab or arrow keys to move to the fields. Either type in all values, or use the number keys to enter dates and the Spacebar and the Backspace key to change days and months.

9. Press the F4 (Back) key to return to the previous screen.
10. Press the F3 (Save) key.
11. Check the User Assistance area of the screen to verify if the save was successful or if there were errors. If errors were detected, correct them and resave the entries. Once the save is successful, continue with Step 12.
12. Press any key to continue.
13. Press the F4 (Cancel) key to return to the container hierarchy.

### ***Adding Time and Value Pairs to an Exception Schedule***

To add time and value pairs to an Exception Schedule:

1. Browse to and highlight a Schedule object.
2. Press Enter to open the object.
3. Press the F3 (Edit) key.
4. Move the cursor to Exception Schedule.
5. Press Enter. The Exception Schedule screen appears (Figure 7-7).
6. Use the Spacebar and Backspace keys to cycle to the Exception Schedule where you want to add Time and Value pairs.
7. Place the cursor on any of the fields that appear except the number of Exception Schedules.
8. Press the F3 (Add Item) key. The Time and Value fields appear (Figure 7-8).
9. In the Time field, type the desired time.
10. In the Value field, press the Spacebar or Backspace key to select On or Off.

Note: Enter as many Time and Value pairs as you need.

11. Repeat Steps 7 through 10 for each pair.
12. Press the F4 (Back) key to return to the previous screen.
13. Press the F3 (Save) key.
14. Check the User Assistance area of the screen to verify if the save was successful or if there were errors. If errors were detected, correct them and resave the entries. Once the save is successful, continue with Step 15.
15. Press any key to continue.
16. Press the F4 (Cancel) key to return to the container hierarchy.

```

South Building: ADMIN                                     Tue 02 Nov 1999 11:08 CST
=====
classes                                                    deg F
=====
Exception Schedule    3 of 3
Exception Type        Date Range
Start Date            22 Nov 1999 Any day of week
End Date              25 Nov 1999 Any day of week
Priority               8

1:Time                06:30:00      Value              70.0 deg F
2:Time                18:00:00      Value              60.0 deg F

F2-Del Item F3-Add Item F4-Back

```

**Figure 7-8: Adding a Time and Value to an Attribute Screen**

### ***Deleting Time and Value Pairs from an Exception Schedule***

To delete time and value pairs from an Exception Schedule:

1. Browse to and highlight a Schedule object.
2. Press Enter to open the object.
3. Press the F3 (Edit) key.
4. Move the cursor to Exception Schedule.
5. Press Enter. The Exception Schedule appears (Figure 7-8).
6. Use the Spacebar and Backspace keys to cycle through and select the Exception Schedule that you want to delete time and value pairs from.
7. Place the cursor on a time and value pair.
8. Press the F2 (Delete Item) key.
9. Repeat Steps 6 through 8 for each pair you wish to delete.
10. Press the F4 (Back) key to return to the previous screen.
11. Press the F3 (Save) key.

12. Check the User Assistance area of the screen to verify if the save was successful or if there were errors. If errors were detected, correct them and resave the entries. Once the save is successful, continue with Step 13.
13. Press any key to continue.
14. Press the F4 (Cancel) key to return to the container hierarchy.

## Commanding Schedule Objects

To command a Schedule object:

1. Browse to and highlight a Schedule object.
2. Press the F2 (Command) key.
3. Use the Spacebar and Backspace keys to cycle through the available commands. The Schedule object supports the commands described in Table 7-8.

**Table 7-8: Supported Commands**

Command	Description
<b>Enable</b>	Allows the Schedule object to resume normal scheduling operation.
<b>Disable</b>	Halts all future scheduled times. Neither the weekly nor the exception schedules will run again, until the Schedule object is re-enabled.

4. Press Enter.

## Deleting Schedule Objects

Note: Deleting Schedule objects can include deleting Weekly Schedules, deleting Exception Schedules from Schedule objects or deleting the Schedule object itself. Deleting items from a List of Prop Refs or an Exception Schedule is covered in the *Editing Schedule Objects* section of this chapter.

### ***Deleting a Weekly Schedule***

To delete a Weekly Schedule:

1. Browse to and highlight a Schedule object.
2. Press Enter to open the object.
3. Press the F3 (Edit) key.
4. Move the cursor to Weekly Schedule.
5. Press Enter. The Weekly Schedule appears (Figure 7-3).
6. Use the Spacebar or the Backspace key to select the day of the week that contains the schedule you want to change.

7. Move the cursor to the first time and value pair.
8. Press the F2 (Item Del) key.
9. Repeat Steps 7 and 8 for each time and value pair in the weekly schedule you are deleting.

Note: The seven days of the week are always available in the weekly schedule. Deleting a weekly schedule means you have removed all schedule time and value pairs from that schedule.

10. Press the F4 (Back) key to return to the previous screen.
11. Press the F3 (Save) key.
12. Check the User Assistance area of the screen to verify if the save was successful or if there were errors. If errors were detected, correct them and resave the entries. Once the save is successful, continue with Step 13.
13. Press any key to continue.
14. Press the F4 (Cancel) key to return to the container hierarchy.

### ***Deleting an Exception Schedule***

To delete an Exception Schedule:

1. Browse to and highlight a Schedule object.
2. Press Enter to open the object.
3. Press the F3 (Edit) key.
4. Move the cursor to Exception Schedule.
5. Press Enter. The Exception Schedule screen appears (Figure 7-7).
6. Use the Spacebar and Tab keys to cycle to the Exception Schedule you want to delete.
7. Press the F2 (Delete) key.
8. Repeat Steps 5 through 7 for each Exception Schedule you want to delete.
9. Press the F4 (Back) key to return to the previous screen.
10. Press the F3 (Save) key.
11. Check the User Assistance area of the screen to verify if the save was successful or if there were errors. If errors were detected, correct them and resave the entries. Once the save is successful, continue with Step 12.
12. Press any key to continue.
13. Press the F4 (Cancel) key to return to the container hierarchy.



***Deleting a Schedule Object***

To delete a Schedule object:

1. Browse to and highlight a Schedule object.
2. Press Enter to open the object.
3. Press the Delete key.
4. Press the Tab key to confirm the deletion.